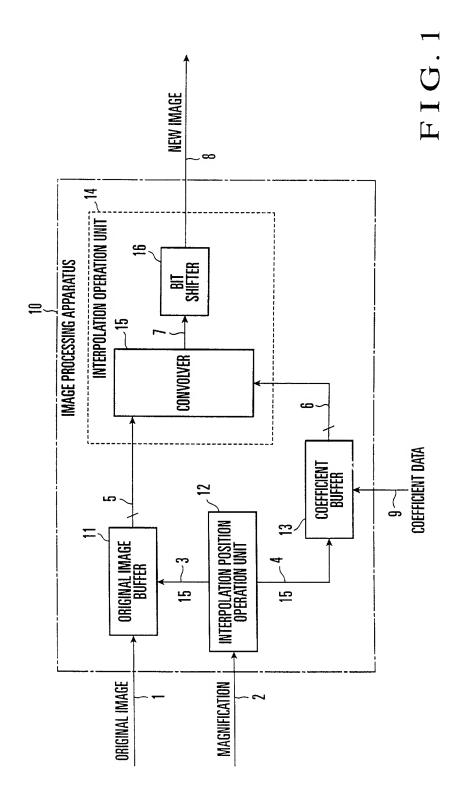
Ardeshir Tabibi, Reg. No. 48,750 (650) 326-2400 Atty. Docket No. 080975 Title: Image Processing Method And Apparatus Applicant: Toshihiro Sasai Sheet 1 of 8



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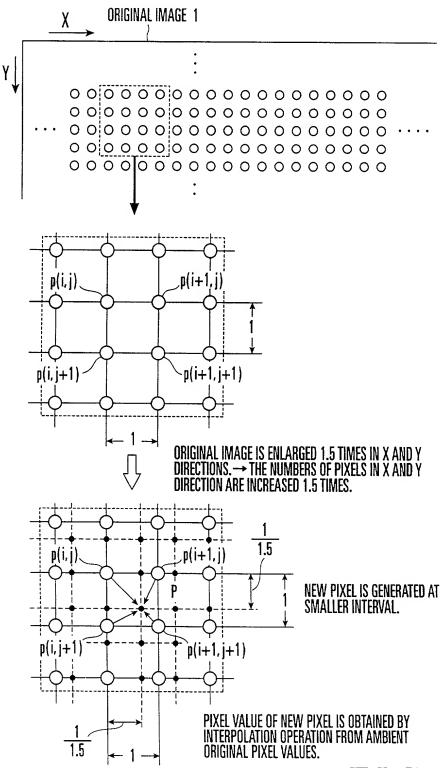


FIG. 2

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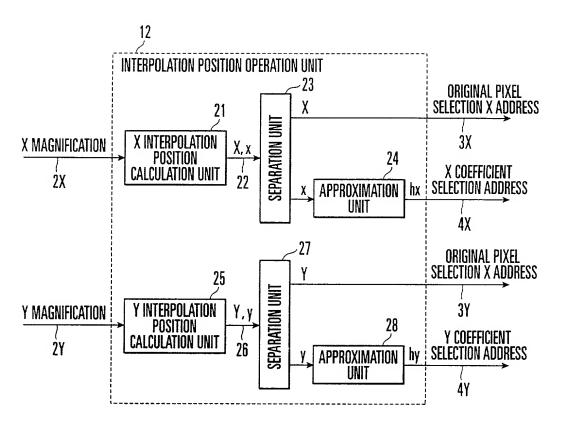
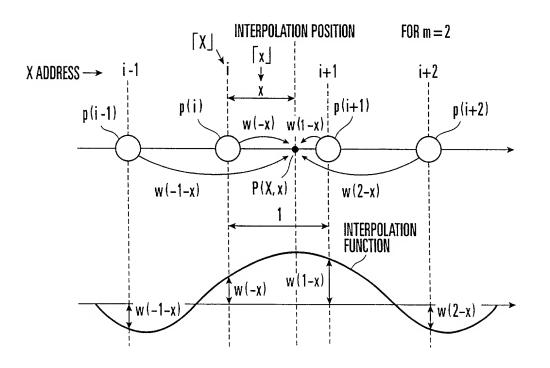
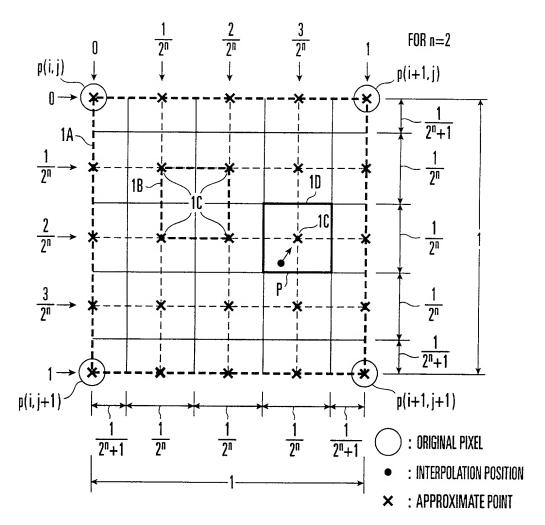


FIG.3

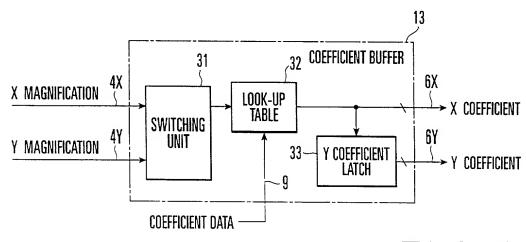


F I G. 4

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F I G. 5



F I G. 6

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		T				
INTERPOLATION COEFFICIENT CORRESPONDING TO EACH ORIGINAL PIXEL POSITION	W(-1), W(0), W(1), W(2),	W $(-1-\frac{1}{2^n})$ , W $(-\frac{1}{2^n})$ , W $(1-\frac{1}{2^n})$ , W $(2-\frac{1}{2^n})$	•••	$W(-1-\frac{h}{2^n})$ , $W(-\frac{h}{2^n})$ , $W(1-\frac{h}{2^n})$ , $W(2-\frac{h}{2^n})$	•••	W(0), W(1), W(2), W(3),
APPROXIMATE Point	0	1 2n		<u>h</u> 2n	• •	-
DISTANCE × FROM P(i) TO INTERPOLATION POSITION	$0 \le x < \frac{1}{2^{n+1}}$	$\frac{1}{2^{n+1}} \le x < \frac{3}{2^{n+1}}$	•••	$\frac{2h-1}{2^{n+1}} \le x < \frac{2h+1}{2^{n+1}}$	•••	$1 - \frac{1}{2^{n+1}} \le x < 1$

## FIG. 7

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FOR m=2, n=2, and k=4

DISTANCE x	INTERPOLATION COEFFICIENT W	NORMALIZED INTERPOLATION COEFFICIENT W	INTEGERIZED Interpolation Coefficient Wi	SET
-8/4	0	0	0	A
-7/4	-0.046875	-0.75	-1	В
-6/4	-0.125	-2	-2	С
-5/4	-0.140625	-2.25	-2	D
-4/4	0	0	0	Α
-3/4	0.296875	4.75	5	В
-2/4	0 625	10	10	C
-1/4	0.890625	14.25	14	D
0	1	16	16	A
1/4	0.890625	14.25	14	В
2/4	0.625	10	10	C
3/4	0.296875	4.75	5	D
4/4	0	0	0	Α
5/4	-0.140625	-2.25	-2	В
6/4	-0.125	-2	-2	C
7/4	-0.046875	-0.75	-1	D
8/4	0	0	0	A

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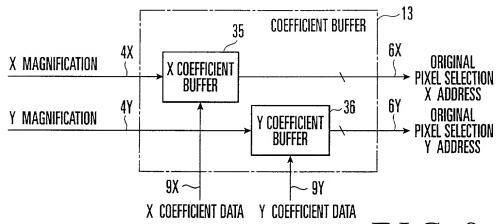


FIG. 9

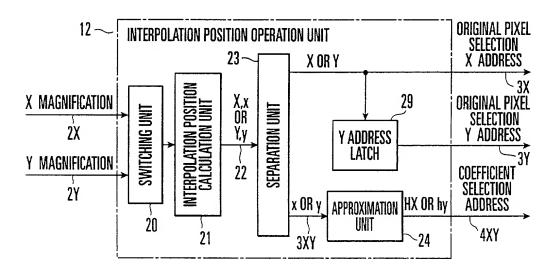
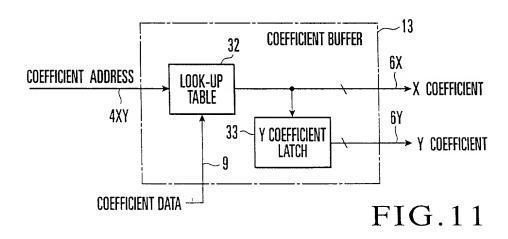


FIG.10



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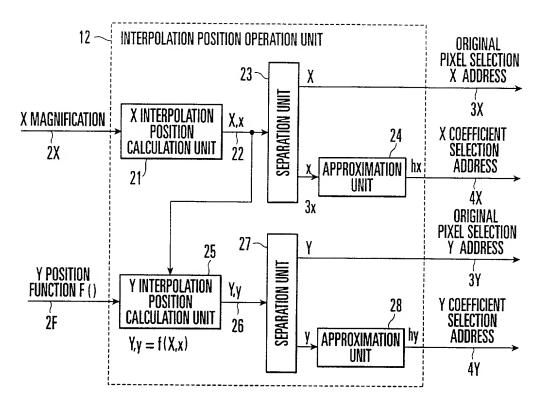
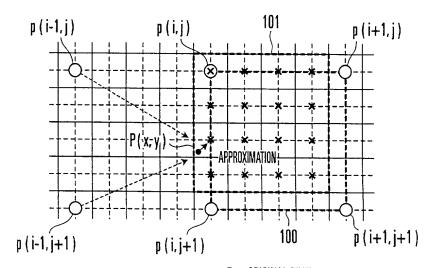


FIG.12



○: ORIGINAL PIXEL

• : INTERPOLATION POSITION

× : APPROXIMATE POINT

FIG.13